Listing of Claims

The following listing of claims is intended to supercede all previously filed listings of claims. Changes are shown with deletions in strikethrough and additions underlined.

Kindly enter the following amendments to the claims:

Claim 1 (currently amended). A method for compressing and decompressing digital terrain elevation data, images, or graphs in at least two dimensions, including the steps of:

computing a numerical approximation to at least one of the slope, curvature, and/or another predetermined geometric feature, and storing the numerical approximation together with data values prescribed at certain predetermined locations;

applying a suitable compression technique to the geometric feature; and retrieving the image;

wherein the retrieving step is carried out by numerically solving for the viscosity solution of the Eikonal Equation, using a source term derived from the compressed slope.

Claim 2 (cancelled).

Claim 3 (currently amended). The method of claim 1, wherein the retrieving step is carried out by numerically solving for the viscosity solution of the Eikonal Equation, using a source term derived from the compressed slope of the slope, repeated N times, with N taken from the degree of the differential operator associated with the geometric feature.

Claim 4 (currently amended). The method of claim 1, wherein the retrieving step is carried out by numerically solving for the viscosity solution of the Eikonal equation, first using a source term derived from the compressed slope, then the viscosity solution is solved by adding the source term derived from the compressed slope to using a source term derived from the error in the compressed slope, and then adding the resulting.

Claims 5-30. (cancelled)